

AMENDMENTS TO THE SPECIFICATION

Please replace page 11, lines 1 – 14 with the following:

The function of equalizer 502 is to demodulate and differentially decode a received signal. In the illustrated embodiment, demodulation and differential decoding are performed jointly by equalizer 502. However, those skilled in the art will recognize that demodulation and decoding could be performed separately. That is, equalizer 502 could be replaced by a separate demodulator 502A and differential decoder 502B. In that case, the demodulator 502A would output a received sequence comprising a plurality of received symbols which would then be fed to a differential decoder 502B. The received sequence is, in essence, an estimate of the transmit sequence input to the modulator 410 at the transmitter 400. The differential decoder 502B would, in that case, differentially decode the received sequence and generate an output sequence, which is essentially an estimate of the original input sequence to the differential coder 408 at the transmitter 400. However, an equalizer 502 can perform both operations, processing the received signal to generate the output sequence, without the intermediate step of generating a received sequence. Instead, differential decoding of the received sequence is performed by equalizer 502 jointly with demodulation.